

## **REMARKS**

The Applicants respectfully request reconsideration of the subject application in view of the amendments and remarks set forth herein.

### **1. Allowable Subject Matter/New Claim 18**

The Applicants note with appreciation the Examiner's indication in the present Office Action that pending claim 2, though objected to as being dependent on a rejected base claim, would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In response, the Applicants direct the Examiner's attention to newly-added claim 18 as set forth above, wherein the subject matter of pending claim 2 and pending, unamended claim 1 are combined to form a new claim, and urge that such claim be entered and promptly considered. As the subject matter of new claim 18 is coextensive with the claimed subject matter to which the Examiner referred in indicating the allowability of pending claim 2, the Applicants further urge that new claim 18 is similarly allowable, and respectfully request the Examiner provide appropriate indication to that effect.

### **2. Previous Issues Withdrawn/Section 102 (Anticipation)**

Applicants further note with appreciation that the issues continue to narrow with respect to prosecution of this application. More particularly, in the outstanding Office Action dated October 17, 2006, the following rejection was withdrawn: a Section 102 rejection of claims 1, 4, 5 and 7-10 over U.S. Patent No. 6,302,668 to Kim (*Kim*).

### **3. Summary of Examiner Interview**

Applicants further greatly appreciate the opportunity provided by the Examiner to conduct an interview with him via teleconference on Tuesday, July 3, 2007, wherein Primary Examiner Lamb, Applicant James W. Vogh, Jr., the undersigned attorney (as attorney for applicants), and X-Rite patent specialist C. Tricia Liu (U.S.P.T.O. Reg. No.

55,388) were also involved, each via teleconference. The following is a summary of the topics discussed during the July 3, 2007 interview.

The undersigned attorney provided Examiner Dulaney with a proposed claims amendment including, *inter alia*, a proposed amendment to independent claim 1 in which subject matter relating to differences in material with respect to color reference patches was included, and a set of new claims directed to a color reference patch kit. During the interview, each of the proposed amendment to independent claim 1 and the new claims directed to the color reference patch kit, were discussed in turn, at least in part with respect to the prospects for patentability with respect to the prior art of record, and particularly with respect to *Kim*. In response to Applicants' arguments that calibrating a scanner for a known material to a known state, as taught by *Kim*, was only a first step, and is not necessarily sufficient to achieve a high degree of accuracy for materials that differ from the calibration target material, as taught by the present disclosure, the Examiner agreed that *Kim* generally appears to lack elaboration with respect to the material of the test pattern 10. The Examiner further indicated general awareness of a passage from U.S. Patent No. 6,480,299 to Drakopoulos (*Drakopoulos*) alluding to the possibility color reference patches *could* vary with respect to their material makeup.

The Examiner was generally positive with respect to the potential for progress in the case toward patentability for the pending claims, though perhaps less so with respect to the new claims in the proposal directed to a color reference patch kit (possibly because of a lack of available time in advance of the interview to give such new subject matter adequate consideration). The Examiner further acknowledged that a new claim in the proposed amendment, submitted in response to an indication in the present Office Action that pending claim 2 would be allowable if amended to include the limitations of claim 1, appeared allowable for the same reasons.

Finally, the Examiner indicated that he had not yet concluded as to what a proper interpretation should be with respect to the phrase "calibrated scanner" as contained in

pending, unamended independent claim 1, and, as such, was open to related arguments and/or additional claims limitations tending to provide clarity in this regard. The conversation ended with the Applicants expressing appreciation for the time and effort of Examiners Dulaney and Lamb in agreeing to attend the interview, and for arranging the same on short notice, and during a holiday week.

#### **4. Definition of “Calibrated Scanner”**

Further to a related discussion during the July 3, 2007 interview, and alluded to in the summary of same provided above, the Examiner has requested clarification with respect to the term “calibrated scanner” recited in pending, unamended claim 1. In response, the Applicants refer the Examiner to the Specification, as filed. For example, in Background, paragraph [0015] the phrase “[c]alibration is necessary to set the color response of [a] color reproduction device” shows that a “calibrated scanner” indicates a scanner, the color response has been set via calibration, and in Background, paragraph [0016] the sentence “The purpose of the calibration is to account for the color differences” shows that a calibrated scanner has had its color differences accounted for, and in Background, paragraph [0028] the term “calibration” is described as “refer[ring] to the process of deriving a transform by comparing a device output to some reference output and generating a lookup table” and the phrase “calibrating a device” is said to “return[] a device to some normalized, standard, and predictable state.” Accordingly, according to the present disclosure at least, a calibrated scanner has had its color response set to account for color differences via a process that derives a transform by comparing an out put of the scanner to a reference output to generate a lookup table, and thereby returning the scanner to a normalized, standard, and predictable state. By contrast, and for example, a scanner, the output of which has not yet been compared to a reference output, and/or has not yet had its color differences accounted for, would not be a “calibrated scanner” in accordance with the present disclosure.

## 5. Claim Amendments

The Applicants have amended independent claim 1 to more precisely define the presently claimed subject matter. In particular, independent claim 1 has been amended to remove respective recitations with respect to “generating a plurality of color reference patches”, and “measuring said patches” (such subject matter being now present in new dependent claims 11 and 12). Further, independent claim 1 has been amended to recite that “the color reference patches of said plurality thereof exhibit respective material compositions sufficiently different, one from the other, as to ordinarily prevent a typical scanner, calibrated to a one of such material compositions, from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting any other of such material compositions than said one of such material compositions”. Still further, independent claim 1 has been amended to recite “wherein said compensation table is selectively useable as part of said compensation transforms to enable an otherwise typical scanner to produce scanned color space values of substantially as high a degree of accuracy with respect to a scannable object exhibiting any one of such material compositions as with respect to a scannable object exhibiting any other one of such material compositions.” Support for such amendments to claim 1 is found in the Specification, as filed (see, *e.g.*, Background paragraph [0015]; Brief Summary of the Invention paragraphs [0055], [0059] and [0067]; and Detailed Description of the Invention paragraph [0086] and related portions of FIG. 2, paragraphs [0095] through [0099], paragraph [00100], and paragraph [00104]).

Dependent claim 9 has been amended to clarify that a CIEL\*a\*b to CMY transform is used “with respect to said scanned color space values” and that a CMY to CIEL\*a\*b transform is used “with respect to said measured color space values”. Support for such amendments are provided in the Specification, as filed (see, *e.g.*, Detailed Description of the Invention paragraph [00107], [00110], and [00111]).

The Applicants respectfully submit that no new matter is introduced by way of the foregoing claim amendments. Prompt entry of the proposed claim amendments is respectfully requested.

#### **6. Section 103 Rejections**

The outstanding Office Action sets forth the following rejections under 35 USC §103(a):

- Claims 1, 4, 5, and 7-10 stand rejected under 35 USC §103(a) based on *Kim* in view of U.S. Patent No. 6,546,129 to Ohta, *et al.* (*Ohta*);
- Claim 3 stands rejected under 35 USC §103(a) based on *Kim* in view of *Ohta*, and further in view of U.S. Patent No. 6,281,984 to Decker, *et al.* (*Decker*); and
- Claim 6 stands rejected under 35 USC §103(a) based on the *Kim* in view of *Ohta*, and further in view of *Drakopoulos*.

Reconsideration of the foregoing Section 103 rejections is respectfully requested.

In rejecting claims 1, 4, 5, and 7-10 based on *Kim* and in view of *Ohta*, the Examiner stated that Kim teaches a method of producing compensation transforms comprising the steps of: generating a plurality of color reference patches, scanning said patches to produce color space values, measuring said patches with an optical measuring device to produce measured space values, and creating a compensation table from said scanned color space values and said measured color space values.” The Examiner further allows that Kim “does not specifically teach that the scanning is performed with a calibrated scanner.” The rejection is respectfully traversed.

As the Examiner is aware, to establish a *prima facie* case of obviousness, one of the three basic criteria that must be met is that the prior art reference (or references when combined) must teach or suggest all the claimed limitations. *In re Vaeck*, 947 F.2d, 488, 20 USPQ2d 1438 (Fed Cir. 1991). Here, a *prima facie* case of obviousness has not been established because independent claim 1, from which each of claims 4, 5, and 7-10 depend, recites limitations not taught or suggested by either of *Kim* or *Ohta*.

Independent claim 1 recites wherein “the color reference patches of said plurality thereof exhibit respective material compositions sufficiently different, one from the other, as to ordinarily prevent a typical scanner, calibrated to a one of such material compositions, from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting any other of such material compositions than said one of such material compositions”, and “wherein said compensation table is selectively useable as part of said compensation transforms to enable an otherwise typical scanner to produce scanned color space values of substantially as high a degree of accuracy with respect to a scannable object exhibiting any one of such material compositions as with respect to a scannable object exhibiting any other one of such material compositions.”

Accordingly, to the extent a context may be identified within which the recitations of independent claim 1 may be interpreted, such context includes wherein a scanner is already calibrated with respect to a known material composition for purposes of producing scanned color space values of high accuracy for objects exhibiting such material composition. The progression of claim 1 further establishes that what is sought is to bring such a scanner to a higher degree of functionality by elevating the accuracy with which the scanner produces scanned color space values with respect to objects exhibiting material compositions other than that for which the scanner has already been calibrated.

Stated in this way, it becomes clear that *Kim*, which seeks only to bring a poorly performing scanner back into proper calibration, essentially ends where the present disclosure only begins. Such basic differences as clearly exist as between what may be termed a ‘remedial’ or ‘reconditioning’ thrust of *Kim*, and a functional enhancement or ‘optimization’ focus which is present with respect to the presently claimed subject matter, reveal *Kim* to be an unilluminating reference unworthy of its present position as a primary reference cited in support of an obviousness rejection. At the very least, the fact that the teachings of *Kim* dwell on bringing a poorly performing scanner up to normal quality with respect to the scanning function should trigger a strong presumption against inferring from

*Kim* those teachings which would be necessary to demonstrate that the reference is even relevant to the question of patentability with respect to the presently pending claims.

The Examiner cites *Ohta* for allegedly teaching “that the scanning is performed with a calibrated scanner”. The Examiner further states that *Ohta* is combinable with *Kim* “because they are both from the color correction field”. However, at least to the extent the teachings of *Ohta* have been discussed or otherwise considered in the present record by the Examiner, *Ohta* appears to fail to teach or suggest a modification to the teachings of *Kim* in a manner that would yield wherein “the color reference patches of said plurality thereof exhibit respective material compositions sufficiently different, one from the other, as to ordinarily prevent a typical scanner, calibrated to a one of such material compositions, from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting any other of such material compositions than said one of such material compositions”, and/or “wherein said compensation table is selectively useable as part of said compensation transforms to enable an otherwise typical scanner to produce scanned color space values of substantially as high a degree of accuracy with respect to a scannable object exhibiting any one of such material compositions as with respect to a scannable object exhibiting any other one of such material compositions.” As such, a prima facie case of obviousness has not been established because the combination of the cited references fails to yield all of the limitations recited in the independent claim.

Thus each of claims 1, 4, 5, and 7-10 is patentable over *Kim* in view of *Ohta*. Accordingly, the Applicants respectfully request that the rejection be withdrawn and the claims allowed.

The Examiner cites *Decker* for allegedly teaching a step of interpolating between different levels of K. However, at least to the extent the teachings of *Decker* have been discussed or otherwise considered on the present record by the Examiner, *Decker* too appears to fail to teach or suggest a modification to the teachings of *Kim* in a manner that would yield wherein “the color reference patches of said plurality thereof exhibit

respective material compositions sufficiently different, one from the other, as to ordinarily prevent a typical scanner, calibrated to a one of such material compositions, from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting any other of such material compositions than said one of such material compositions”, and/or “wherein said compensation table is selectively useable as part of said compensation transforms to enable an otherwise typical scanner to produce scanned color space values of substantially as high a degree of accuracy with respect to a scannable object exhibiting any one of such material compositions as with respect to a scannable object exhibiting any other one of such material compositions.” As such, a prima facie case of obviousness has not been established because the combination of the cited references fails to yield all of the limitations recited in the independent claim.

Thus claims 3 is patentable over *Kim* in view of *Ohta*, and further in view of *Decker*. Accordingly, the Applicants respectfully request that the rejection be withdrawn and the claim allowed.

The Examiner cites *Drakopoulos* for allegedly teaching wherein an optical measuring device is a spectrophotometer. The Examiner has further stated with respect to *Drakopoulos* wherein it recognizes that color reference patches may differ to at least some extent in their respective material composition. However, and importantly, at least to the extent the teachings of *Drakopoulos* have been discussed or otherwise considered on the present record by the Examiner, *Drakopoulos* too appears to fail to teach or suggest a modification to the teachings of *Kim* in a manner that would yield wherein “the color reference patches of said plurality thereof exhibit respective material compositions sufficiently different, one from the other, as to ordinarily prevent a typical scanner, calibrated to a one of such material compositions, from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting any other of such material compositions than said one of such material compositions”, and/or “wherein said compensation table is selectively useable as part of said compensation



transforms to enable an otherwise typical scanner to produce scanned color space values of substantially as high a degree of accuracy with respect to a scannable object exhibiting any one of such material compositions as with respect to a scannable object exhibiting any other one of such material compositions.” As such, a prima facie case of obviousness has not been established because the combination of the cited references fails to yield all of the limitations recited in the independent claim.

Thus claims 6 is patentable over *Kim* in view of *Ohta*, and further in view of *Drakopoulos*. Accordingly, the Applicants respectfully request that the rejection be withdrawn and the claim allowed.

#### **7. New Claims 11-17 Allowable**

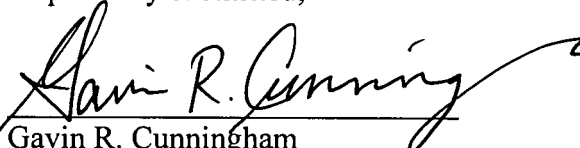
Each of new claims 11-14 depends, whether directly or indirectly, on independent claim 1. Accordingly, new claims 11-14 recites, among other limitations, the above-discussed subject matter, absent from the prior art of record as demonstrated above, wherein “the color reference patches of said plurality thereof exhibit respective material compositions sufficiently different, one from the other, as to ordinarily prevent a typical scanner, calibrated to a one of such material compositions, from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting any other of such material compositions than said one of such material compositions”, and “wherein said compensation table is selectively useable as part of said compensation transforms to enable an otherwise typical scanner to produce scanned color space values of substantially as high a degree of accuracy with respect to a scannable object exhibiting any one of such material compositions as with respect to a scannable object exhibiting any other one of such material compositions.” As such, just as claim 1 has been shown to be patentable over the prior art of record, so too is each of new claims 11-14 patentable thereover. Accordingly, the Applicants respectfully request entry and prompt consideration of new claims 11-14 with a view toward providing a prompt notice of allowability with respect thereto.

With respect to new claims 15-18, the Applicants note that nowhere in the prior art of record does there appear to be any teaching or suggestion with respect to a color reference patch kit for use in producing color transformation transforms, and comprising a plurality of color reference patches, wherein the color reference patches of the plurality thereof exhibit respective material compositions sufficiently different, one from the other, as to ordinarily prevent a typical scanner, calibrated to a one of such material compositions, from producing scanned color space values of as high a degree of accuracy with respect to scannable objects exhibiting any other of such material compositions than said one of such material compositions. Each of new claims 15-17 recites such subject matter. Accordingly, at least with respect to the prior art of record, each of new claims 15-17 would appear to be new and non-obvious, and thus patentable. Accordingly, the Applicants respectfully request entry and prompt consideration of new claims 15-17 with a view toward providing a prompt notice of allowability with respect thereto.

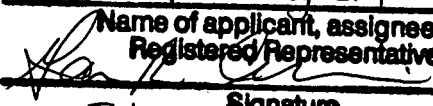
The Applicants respectfully submit that all claims are in condition for allowance. Prompt action leading to an early Notice to this effect is earnestly solicited. If the Examiner believes that a telephone conversation may be useful in advancing prosecution of this application, he is invited to contact applicants' attorney at the number set forth below.

Respectfully submitted,

Date: July 5, 2007

  
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